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Dilworth & Barrese, LLP
333 Earle Ovington Blvd.
Uniondale, NY 11553

EXAMINER

PHAM, HUNG Q

ART UNIT	PAPER NUMBER
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2168

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/785,000	Applicant(s) LEE ET AL.	
	Examiner HUNG Q. PHAM	Art Unit 2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on '07/05/06 has been entered.

Response to Arguments

- Applicants' arguments with respect to the validity of the secondary reference have been fully considered but they are not persuasive. Answers to these arguments were provided in the Office Action 02/23/06.

- Applicants' arguments with respect to the rejection of claims 1-27 under U.S.C. § 102 and 103 have been considered but are moot in view of the new ground(s) of rejection.

Duplicate Claims, Warning

Applicant is advised that should claim 1 be found allowable, claim 25 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

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Claim Objections

Claims 1 and 25-27 are objected to because of the following informalities: *the data structure* (*the mapping data structure* is respectfully suggested). Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The method of claim 1 does not produce a useful result as set forth in MPEP 2106 (IV)(B)(2)(b)(ii)¹. In particular, the claimed limitation, *mapping information about people, activities, and social interactions at the web site onto said graphical representation for facilitating user socialization*, does not produce a useful result for *navigating the Internet and for facilitating user socialization at web sites* as recited in the preamble. The claimed limitation *for facilitating user socialization* is an intended use

¹ MPEP 2106 (IV)(B)(2)(b)(ii):

For such subject matter to be statutory, the claimed process must be limited to a practical application of the abstract idea or mathematical algorithm in the technological arts. See *Alappat*, 33 F.3d at 1543, 31 USPQ2d at 1556-57 (quoting *Diamond v. Diehr*, 450 U.S. at 192, 209 USPQ at 10). See also *Alappat* 33 F.3d at 1569, 31 USPQ2d at 1578-79 (Newman, J., concurring) ("unpatentability of the principle does not defeat patentability of its practical applications") (citing *O'Reilly v. Morse*, 56 U.S. (15 How.) at 114-19). A claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result; i.e., the method recites a step or act of producing something that is concrete, tangible and useful. See *AT & T*, 172 F.3d at 1358, 50 USPQ2d at 1452. Likewise, a machine claim is statutory when the machine, as claimed, produces a concrete, tangible and useful result (as in *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601) and/or when a specific machine is being claimed (as in *Alappat*, 33 F.3d at 1544, 31 USPQ2d at 1557 ("*ent. banc*"). For example, a computer process that simply calculates a mathematical algorithm that models noise is nonstatutory. However, a claimed process for digitally filtering noise employing the mathematical algorithm is statutory.

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limitation². How to *navigate the Internet and facilitate user socialization at web sites* from the mapped information onto the graphical representation is still unknown and not recited in the claim.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 25-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention,

As in claim 1, the claimed limitation, *said graphical representation graphically depicting the two or more categories mapped to a corresponding pie segment and the subcategories defined by subrings*, was not described in the Specification. As illustrated in the Specification, each major category mapped to a pie segment, and the sub rings represent levels of specificity (Specification, page 18-Lines 8-9). Thus, according to the specification, each category is mapped to a pie segment and sub

² MPEP 2111.04:

- (A) "adapted to" or "adapted for" clauses;
- (B) "wherein" clauses; and
- (C) "whereby" clauses.

The determination of whether each of these clauses is a limitation in a claim depends on the specific facts of the case. In *Hoffer v. Microsoft Corp.*, 405 F.3d 1326, 1329, 74 USPQ2d 1481, 1483 (Fed. Cir. 2005), the court held that when a "whereby" clause states a condition that is material to patentability, it cannot be ignored in order to change the substance of the invention." *Id.* However, the court noted (quoting *Minton v. Nat'l Ass'n of Securities Dealers, Inc.*, 336 F.3d 1373, 1381, 67 USPQ2d 1614, 1620 (Fed. Cir. 2003)) that a "whereby clause in a method claim is not given weight when it simply expresses the intended result of a process step positively recited." *Id.*<

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rings define levels of specificity. These disclosed features are different from *two or more categories mapped to a corresponding pie*, and *the subcategories defined by subrings* as claimed.

As in claims 25-27, the claimed limitations, *the subcategories are defined by subrings* and *a corresponding pie segment of the two or more categories*, were not described in the Specification. As illustrated in the Specification, each major category mapped to a pie segment, and the sub rings represent levels of specificity (Specification, page 18-Lines 8-9). Thus, according to the specification, each category is mapped to a pie segment and sub rings define levels of specificity. These disclosed features are different from *the subcategories are defined by subrings* and *a corresponding pie segment of the two or more categories* as claimed.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1,

the clause, *the two or more categories mapped to a corresponding pie segment*, at lines 10-11, references to other items in the claim. It is unclear what item is being referenced;

the clause *the subcategories defined by subrings*, at line 11, references to other items in the claim. It is unclear what item is being referenced;

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the clause, *the subcategories*, at line 12, references to two kinds of subcategories, one at line 7 and one at line 11. It is unclear which one is being referenced³.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, 5, 6 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minar et al. ["Visualizing the Crowds at a Web Site", The Java Applet at <http://www.media.mit.edu/~nelson/research/crowdvis>] and Hughes et al. [USP 5,442,741].

Regarding claim 1, Minar teach *a method for navigating the Internet and for facilitating user socialization at web sites* (Abstract), *the method being utilized in a computer networking system having one or*

³ For the purpose of examination, this limitation is interpreted as *depicting the two or more categories by mapping each of these categories to a corresponding pie segment and the subcategories such that the subcategories are graphically depicted within a corresponding category of the two or more categories.*

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more central processing units, one or more memories, and one or more network connections (World Wide

Web as disclosed in the INTRODUCTION implies a computer networking system having one or more central processing units, one or more memories, and one or more network connections), the method comprising steps of:

creating at least one instance of a mapping data structure for a web site, the data structure representing two or more categories, each of the categories divided into subcategories of ordered levels of specificity, each of the ordered levels of specificity being a grouping of subcategories of the same levels of specificity (The Site Map of a web site at the IT Media Lab as an *instance of a mapping data structure for a web site*, the Site Map representing two or more categories, e.g., Software Agents, Synthetic Characters..., each of the categories divided into subcategories of ordered levels of specificity, e.g., each topic divided into four kinds of pages as the first level of specificity, e.g., pages for topic, pages for a project..., each kind of page is a group of particular pages under that kind as the second level, *each of the ordered levels of specificity being a grouping of subcategories of the same levels of specificity*, e.g., the first level of specificity is a grouping of four topics as *subcategories at the same levels of specificity* (Minar, "Visualizing the Crowds at a Web Site"-Page 186-187 and the Java Applet));

generating a graphical representation of said at least one instance of said mapping data structure, said graphical representation graphically depicting the two or more categories and the subcategories such that the subcategories are graphically depicted within a corresponding category of the two or more categories (As in the full dynamics visualization at page 2 as a *graphical representation of said at least one instance of said mapping data structure*, the web pages are organized into four topics: Software Agents, Synthetic Characters, Gesture and Narrative Language, and Epistemology and Learning. Each topic is placed in one quadrant of the display, and there are four kinds of pages in each topic: page for the topic as a whole (shown in red), for a project (green), for a person (blue), or for a course (yellow). As seen, the full dynamics visualization *depicting the two or more categories*, i.e., Software Agents and Synthetic Characters, *and the subcategories*, i.e., page for the topic as a whole (shown

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in red), for a project (green), for a person (blue), or for a course (yellow), *such that the subcategories are graphically depicted within a corresponding category of the two or more categories, i.e., page for the topic as a whole (shown in red), for a project (green), for a person (blue), and for a course (yellow) are represented within Software Agents); and*

mapping information about people, activities, and social interactions at the web site onto said graphical representation (the circles as in CROWD VISUALIZATION represent people near the documents they are currently visiting, VISUALIZATION, and popular groups of pages on the web site are visibly crowded with people jostling around as they move from page to page, and seldom-visited portions of the site are identifiable by faded color, CROWD DYNAMICS).

The difference between Minar and the current invention is the displaying of the categories. The current invention displays the data structure by *mapping each of two or more categories to a corresponding pie segment*. Minar displays the data structure by mapping each of two or more categories to a quadrant of a square.

Hughes teaches a technique of displaying information on computer screens. Hughes further discloses the technique of using a pie chart that has a plurality of segment for representing information (Hughes, FIG. 15 and 16).

Instead of using quadrants of a square for displaying, obviously, a pie chart with a plurality of segments, as taught by Hughes, could be used to represent the categories. By using the segments of a pie chart to represent groups of information, the number of category of a web site that is greater than four could be handled and displayed to a user.

Regarding claims 25-27, Minar teaches a computer system and program for executing the method of visualizing the crowds at a web site by:

creating an instance of a mapping data structure for a given web site, the data structure representing two or more categories by dividing each of the categories into subcategories of ordered levels of specificity; dividing

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each of the ordered levels of specificity into a grouping of subcategories of the same levels of specificity (As disclosed in "Visualizing the Crowds at a Web Site" (The Site Map of a web site at the IT Media Lab as an instance of a mapping data structure for a web site, the Site Map representing two or more categories, e.g., Software Agents, Synthetic Characters..., each of the categories divided into subcategories of ordered levels of specificity, e.g., each topic divided into four kinds of pages as the first level of specificity, e.g., pages for topic, pages for a project..., each kind of page is a group of particular pages under that kind as the second level, each of the ordered levels of specificity being a grouping of subcategories of the same levels of specificity, e.g., the first level of specificity is a grouping of four topics as subcategories at the same levels of specificity (Minar, "Visualizing the Crowds at a Web Site"-Page 186-187 and the Java Applet));

displaying the subcategories and the grouping of subcategories by level of specificity in geometric pattern such that the subcategories are graphically depicted within a corresponding category of the two or more categories (As discussed above, the full dynamic visualization displaying the subcategories and the grouping of subcategories by level of specificity in a geometric pattern, e.g., four kinds of pages as subcategories: page for the topic as a whole (shown in red), for a project (green)... are grouped at each quadrant under a topic as level of specificity in a geometric pattern, and the purpose is to graphically depict the subcategories within a corresponding category of the two or more categories, i.e., page for the topic as a whole (shown in red), for a project (green), for a person (blue), and for a course (yellow) are represented within Software Agents);

mapping information about people, activities, and social interactions at the web site onto said visual, geometric pattern (the circles as in CROWD VISUALIZATION represent people near the documents they are currently visiting, VISUALIZATION, and popular groups of pages on the web site are visibly crowded with people jostling around as they move from page to page, and seldom-visited portions of the site are identifiable by faded color, CROWD DYNAMICS).

The difference between Minar and the current invention is the displaying of the categories. The current invention displays the data structure by *defining the subcategories by subrings* and *mapping a corresponding category to a pie segment*. Minar displays the data structure by mapping each of two or more categories to a quadrant of a square.

Hughes teaches a technique of displaying information on computer screens. Hughes further discloses the technique of using a pie chart that has a plurality of segment for representing information (Hughes, FIG. 15 and 16).

Instead of using quadrants of a square for displaying, obviously, a pie chart with a plurality of segments, as taught by Hughes, could be used for *mapping a corresponding category to a pie segment* and *defining the subcategories by subrings*. By using the segments of a pie chart to represent groups of information, the number of category of a web site that is greater than four could be handled and displayed to a user.

Regarding claim 2, Minar and Hughes, in combination, teach all of the claimed subject matter as discussed above with respect to claim 1, Minar further discloses *the data structure includes one or more sections, the sections being logical intersections of one of the categories with one of the levels of specificity* (e.g., /people/nelson as in SITE MAP).

Regarding claim 5, Minar and Hughes, in combination, teach all of the claimed subject matter as discussed above with respect to claim 1, Minar further discloses *the categories include any one or more of the following: a product category, a service category, a category class, a category list, a product class, a list of products in a class, a product specification, a service class, a list of services, and a service specification* (SITE MAP).

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Regarding claim 6, Minar and Hughes, in combination, teach all of the claimed subject matter as discussed above with respect to claim 1, Minar further discloses *the levels of specificity include any one or more of the following: category class, category list, offering specification, product class, list of products in a class, product specification, service class, list of services, and a service specification (SITE MAP).*

Regarding to claim 24, Minar and Hughes, in combination, teach all of the claimed subject matter as discussed above with respect to claim 1, Minar further discloses *the social information mapped in the data structure is served over one or more of the network connections for display of one or more visual districts on one or more clients (INDIVIDUALS and CROWD VISUALIZATION).*

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minar et al. ["Visualizing the Crowds at a Web Site", The Java Applet at <http://www.media.mit.edu/~nelson/research/crowdvis>], Hughes et al. [USP 5,442,741] as applied to claim 2 above, and further in view of Hazlehurst et al. [USP 6,289,353 B1].

Regarding claim 3, Minar and Hughes, in combination, teach all of the claimed subject matter as discussed above with respect to claim 2, but does not explicitly teach *one or more subcategories have a degree of closeness relating the section to one or more other sections*. Hazlehurst teaches *one or more subcategories have a degree of closeness relating the section to one or more other sections* (Hazlehurst, FIG. 10A-B, Cols. 12-13). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Minar method by including the degree of closeness as taught by Hazlehurst in order to represent the data sets of major areas of interest in specific details representing by subcategories.

Regarding claim 4, Minar, Hughes and Hazlehurst, in combination, teach all of the claimed subject matter as discussed above with respect to claim 3, Hazlehurst further discloses *the degree of closeness relates to any one or more of following: a physical closeness of location of physical items represented by the respective sections, a relational closeness between one or more users and one or more objects, a relational closeness between one or more users, a semantic closeness of descriptions of items represented by the respective sections, and a behavioral closeness of pattern of use* (Hazlehurst, FIG. 10A-B, Cols. 12-13).

Claims 7-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minar et al. ["Visualizing the Crowds at a Web Site", The Java Applet at <http://www.media.mit.edu/~nelson/research/crowdvis>], Hughes et al. [USP 5,442,741] as applied to claim 2 above, and further in view of Nortel et al. [WebQuery: Searching and Visualizing the Web through Connectivity].

Regarding claim 7, Minar and Hughes, in combination, teach all of the claimed subject matter as discussed above with respect to claim 1, but does not explicitly disclose the step of *collecting information about one or more nodes located on one or more of the districts*. Nortel teaches a method for searching and visualizing the Web, Nortel further discloses the step of *collecting information about one or more nodes located on one or more of the districts* (Nortel, pages 5-7). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Minar method by including the step of collecting information about one or more nodes as taught by Nortel in order to represent the data sets of major areas of interest in specific details representing by subcategories.

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Regarding claim 8, Minar, Hughes and Nortel, in combination, teach all of the claimed subject matter as discussed above with respect to claim 7, Nortel further discloses *the nodes are differentiated by any one or more node functions* (Nortel, pages 5-6).

Regarding claim 9, Minar, Hughes and Nortel, in combination, teach all of the claimed subject matter as discussed above with respect to claim 8, Minar further discloses *the node functions include any one or more of the following: initiating a chat session, providing information, causing a user to be associated with a node location, providing access to sales information, providing access to a salesman, and changing a browser page to one that has information relating to the node* (Minar, INTRODUCTION).

Regarding claim 10, Minar, Hughes and Nortel, in combination, teach all of the claimed subject matter as discussed above with respect to claim 7, and the MIT Media Lab Web Site as disclosed by Minar is *one or more of the nodes is a landmark that marks a salient location on one or more of the districts*.

Regarding claim 11, Minar, Hughes and Nortel, in combination, teach all of the claimed subject matter as discussed above with respect to claim 10, and the MIT Media Lab Web Site as disclosed by Minar is *the salient location is fixed and associated with one of a plurality of business categories*.

Regarding claim 12, Minar, Hughes and Nortel, in combination, teach all of the claimed subject matter as discussed above with respect to claim 10, and the MIT Media Lab Web Site as disclosed by Minar is *the salient location can change in time and is associated with an activity*.

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Regarding claim 13, Minar, Hughes and Nortel, in combination, teach all of the claimed subject matter as discussed above with respect to claim 12, Minar further discloses *the activity is one or more of the following: a current "hot spot", "a list of most popular pages in a computer section", a public chat, a sale, a special product offering, a special service offering, and a sales agent availability* (Minar, SITE MAP).

Regarding claim 14, Minar, Hughes and Nortel, in combination, teach all of the claimed subject matter as discussed above with respect to claim 10, Minar further discloses *the salient location is personally meaningful to the user* (Minar, CROWD VISUALIZATION).

Regarding claim 15, Minar, Hughes and Nortel, in combination, teach all of the claimed subject matter as discussed above with respect to claim 14, the MIT Media Lab Web Site as disclosed by Minar is *the salient location represents any one or more of the following: a user's buddy, a chat buddy, a private chat, a user's favorite spot, and a user with common interest*.

Regarding claim 16, Minar, Hughes and Nortel, in combination, teach all of the claimed subject matter as discussed above with respect to claim 7, and the claimed *the system comprising one or more paths, each path connecting two or more nodes* is an inherent feature of World Wide Web.

Regarding claim 17, Minar, Hughes and Nortel, in combination, teach all of the claimed subject matter as discussed above with respect to claim 16, and the claimed *the path links two or more of the nodes to associate connectivity relationships among the nodes* is an inherent feature of World Wide Web.

Regarding claim 18, Minar, Hughes and Nortel, in combination, teach all of the claimed subject matter as discussed above with respect to claim 16, and the claimed *a path is associated with one of the following: a user's path through one or more of the districts, a customer's path through one or more of the districts, a preferred path of a group of users through one or more of the districts, a preferred path of a group of users with common interests through one or more of the districts, and a preferred path of a group of users with complementary interests through one or more of the districts* is an inherent feature of World Wide Web.

Regarding claim 19, Minar, Hughes and Nortel, in combination, teach all of the claimed subject matter as discussed above with respect to claim 7, Nortel further discloses *one or more node sets, each node set containing one or more nodes clustered in nearby locations in one or more of the districts* (Nortel, pages 3-5).

Regarding claim 20, Minar, Hughes and Nortel, in combination, teach all of the claimed subject matter as discussed above with respect to claim 19, Nortel further discloses *a node set represent a relationship among two or more nodes located in one or more of the districts* (Nortel, pages 3-5).

Regarding claim 21, Minar, Hughes and Nortel, in combination, teach all of the claimed subject matter as discussed above with respect to claim 19, Nortel further discloses *where one or more of the node sets is associated with one of the following: a density of users gathered in one or more adjacent node locations, a set of node locations marking results of a search, a set of node locations related by a semantic attribute, a set of node locations visited by a group of users with common interests, a set of node locations visited by a group of users with complementary interests, and a crowd of users* (Nortel, pages 3-5).

Regarding claim 22, Minar, Hughes and Nortel, in combination, teach all of the claimed subject matter as discussed above with respect to claim 19, Nortel further discloses *one or more of the node sets has a node set function* (Nortel, pages 3-5).

Regarding claim 23, Minar, Hughes and Nortel, in combination, teach all of the claimed subject matter as discussed above with respect to claim 22, Minar further discloses *the node set function includes any one or more of the following: providing information about the set, changing a user's location to be associated with a node location in the set, and changing browser page to one that has information relating to a node in the set* (Minar, SITE MAP).


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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q. PHAM whose telephone number is 571-272-4040. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIM T. VO can be reached on 571-272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


HUNG Q PHAM
Examiner
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